

**US-PAT-NO: 6138024**

**DOCUMENT-IDENTIFIER: US 6138024 A**

**TITLE: Dynamic channel selection in a cellular communication system**

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**Brief Summary Text - BSTX (18):**

**Preferably, the available allocated communication channel with the highest estimated expected probability of non-interference which is not adjacent to an allocated communication channel in use by the first cellular communication system is selected. In one form, the set of allocated communication channels is divided into a plurality of groups, and the estimated expected probability of non-interference for an allocated communication channel in a group is determined in part based on the received signal strength indication data for all allocated communication channels in the group. The estimated expected**

**probability of non-interference for an allocated communication channel in the group is desirably adjusted by a group improvement factor or a group degradation factor. In a preferred embodiment, the received signal strength indication data is sensed and measured over a period of time and stored in an RSSI database, and the estimated expected probability of non-interference for each allocated communication channel is based upon at least a portion of the stored data.**

**Brief Summary Text - BSTX (25):**

**The collected received signal strength indication measurements taken on each first frequency split are recorded over an extended period of time into a first split RSSI database and the collected received signal strength indication measurements taken on each second frequency split are recorded over an extended period of time into a second split RSSI database and the estimated expected probability of non-interference for each allocated voice channel is based upon at least a portion of the recorded first frequency split received signal strength indication measurements and at least a portion**

**of the recorded second frequency split received signal strength indication measurements. In one form, the set of allocated voice channels are divided into a plurality of groups and the estimated expected probability of non-interference for an allocated voice channel in a group is based upon at least a portion of the recorded first frequency split received signal strength indication measurements and at least a portion of the recorded second frequency split received signal strength indication measurements for all allocated voice channels in the group.**

**Claims Text - CLTX (123):**

**44. The method of claim 40 wherein said periodically collected received signal strength indication measurements are collected over an extended period of time and stored in an RSSI database, and wherein said estimated expected probability of non-interference for each allocated communication channel is based upon at least a portion of said collected and stored data.**

**Current US Original Classification - CCOR (1):**

**455/452.2**

**Current US Cross Reference Classification - CCXR (1):**  
**455/448**